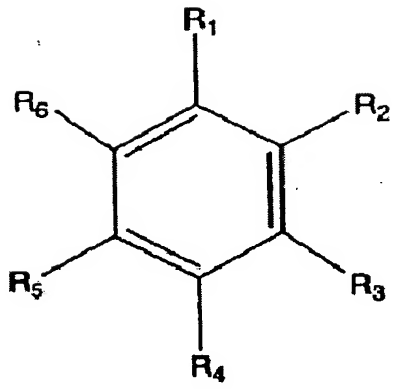
What is claimed as new and desired to be protected by Letters Patent of the United States is:

1. A lithium secondary battery comprising a nonaqueous electrolytic solution containing a compound which is oxidized at a voltage higher than a charge end voltage of the lithium secondary battery and a compound which inhibits reactions at voltages lower than said charge end voltage.

2. The lithium secondary battery of claim 1 wherein said nonaqueous electrolytic solution is composed of a fluorinated solvent represented by the chemical formula (1) and an aromatic compound represented by the chemical formula (2) below.

$$Rf_1——X——Rf_2 \quad (1)$$

(where Rf_1 denotes an entirely or partly fluorinated C_{2-10} alkyl group, Rf_2 denotes an entirely or partly fluorinated C_{1-5} alkyl group, and X denotes an ether or ester.)

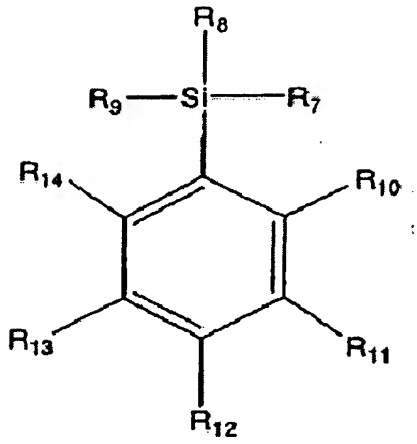


(2)

(where R_1, R_2, R_3, and R_4 each denotes hydrogen, fluorine, chlorine, bromine, a C_{1-3} alkyl group or alkoxyl group, a phenyl group, a phenoxy group, an alkyl-substituted phenyl group or phenoxy group, a C_{1-4} carboxyl group, a benzyl group, or an alkyl-substituted or alkoxyl-substituted silyl group; and R_5 and R_6 each denotes hydrogen, fluorine, chlorine, bromine, or a C_{1-3} alkyl group.)

3. The lithium secondary battery according to claim 2 wherein the fluorinated solvent is methyl nanofluorobutyl ether.

4. The lithium secondary battery according to claim 2 wherein the aromatic compound is a phenylsilane derivative represented by the chemical formula (3) below.



(3)

(where R_7, R_8, and R_9 each denotes hydrogen, a C_{1-3} alkyl group or alkoxyl group, a phenyl group, a phenoxy group, a benzyl group, fluorine, chlorine, bromine, or a C_{1-3} alkyl-substituted phenyl group, phenoxy group, or benzyl group; and R_{10}, R_{11}, R_{12}, R_{13}, and R_{14} each denotes a C_{1-3} alkoxyl group, a phenyl group, a benzyl group, or a phenyl group, phenoxy group, or benzyl group substituted with fluorine, chlorine, or bromine.)

5. The lithium secondary battery according to claim 4 wherein said phenylsilane derivative is selected from the group comprising diphenylsilane, diphenylmethylsilane, 4-methylpheyltrimethylsilane, and diphenyl-dimethoxysilane.

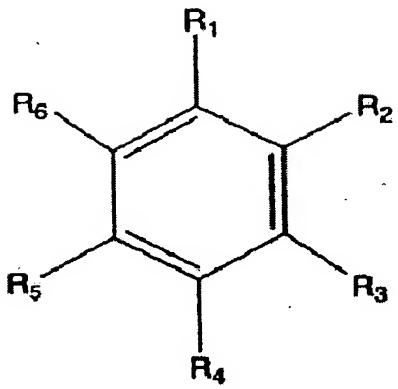
6. A lithium secondary battery having a nonaqueous electrolytic solution characterized in that the lithium secondary battery has a charge

capacity of C_1 when it (in discharged state) is charged with constant current until a voltage V_1 of 1.2V is reached and the lithium secondary battery has a charge capacity of C_2 when it is charged further (at a voltage higher than V_1) until it cannot be charged any longer, with the ratio (ξ) of C_1/C_2 being lower than 0.7.

7. The lithium secondary battery of claim 6 wherein said nonaqueous electrolytic solution is composed of a fluorinated solvent represented by the chemical formula (1) and an aromatic compound represented by the chemical formula (2) below.

$$Rf_1——X——Rf_2 \quad (1)$$

(where Rf_1 denotes an entirely or partly fluorinated C_{2-10} alkyl group, Rf_2 denotes an entirely or partly fluorinated C_{1-5} alkyl group, and X denotes an ether or ester.)

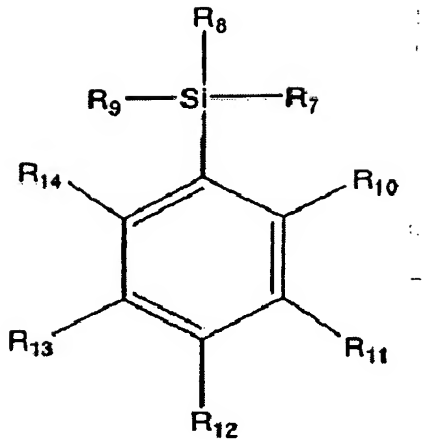


(2)

(where R_1, R_2, R_3, and R_4 each denotes hydrogen, fluorine, chlorine, bromine, a C_{1-3} alkyl group or alkoxyl group, a phenyl group, a phenoxy group, an alkyl-substituted phenyl group or phenoxy group, a C_{1-4} carboxyl group, a benzyl group, or an alkyl-substituted or alkoxyl-substituted silyl group; and R_5 and R_6 each denotes hydrogen, fluorine, chlorine, bromine, or a C_{1-3} alkyl group.)

8. The lithium secondary battery according to claim 7 wherein the fluorinated solvent is methyl nanofluorobutyl ether.

9. The lithium secondary battery according to claim 7 wherein the aromatic compound is a phenylsilane derivative represented by the chemical formula (3) below.



(3)

(where R_7, R_8, and R_9 each denotes hydrogen, a C_{1-3} alkyl group or alkoxyl group, a phenyl group, a phenoxy group, a benzyl group, fluorine, chlorine, bromine, or a C_{1-3} alkyl-substituted phenyl group, phenoxy group, or benzyl group; and R_{10}, R_{11}, R_{12}, R_{13}, and R_{14} each denotes a C_{1-3} alkoxyl group, a phenyl group, a benzyl group, or a phenyl group, phenoxy group, or benzyl group substituted with fluorine, chlorine, or bromine.)

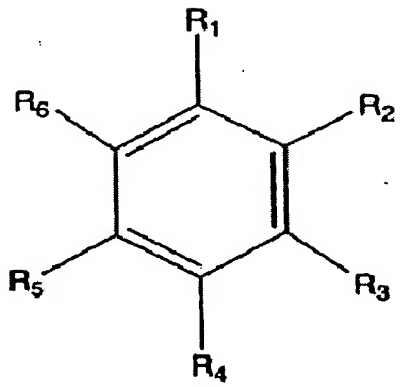
10. The lithium secondary battery according to claim 9 wherein said phenylsilane derivative is selected from the group comprising diphenylsilane, diphenylmethylsilane, 4-methylpheyltrimethylsilane, and diphenyl-dimethoxysilane.

11. A lithium secondary battery comprising a nonaqueous electrolytic solution containing a compound which is oxidized at a voltage

higher than a charge end voltage of the lithium secondary battery and a compound which inhibits reactions at voltages lower than said charge end voltage wherein said nonaqueous electrolytic solution is composed of a fluorinated solvent represented by the chemical formula (1) and an aromatic compound represented by the chemical formula (2) below.

$$Rf_1——X——Rf_2 \quad (1)$$

(where Rf_1 denotes an entirely or partly fluorinated C_{2-10} alkyl group, Rf_2 denotes an entirely or partly fluorinated C_{1-5} alkyl group, and X denotes an ether or ester.)



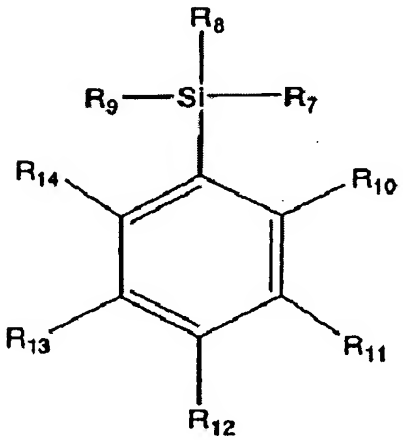
(2)

(where R_1, R_2, R_3, and R_4 each denotes hydrogen, fluorine, chlorine,

bromine, a C_{1-3} alkyl group or alkoxyl group, a phenyl group, a phenoxy group, an alkyl-substituted phenyl group or phenoxy group, a C_{1-4} carboxyl group, a benzyl group, or an alkyl-substituted or alkoxyl-substituted silyl group; and R_5 and R_6 each denotes hydrogen, fluorine, chlorine, bromine, or a C_{1-3} alkyl group.)

12. The lithium secondary battery according to claim 11 wherein the fluorinated solvent is methyl nanofluorobutyl ether.

13. The lithium secondary battery according to claim 11 wherein the aromatic compound is a phenylsilane derivative represented by the chemical formula (3) below.



(3)

(where R_7, R_8, and R_9 each denotes hydrogen, a C_{1-3} alkyl group or

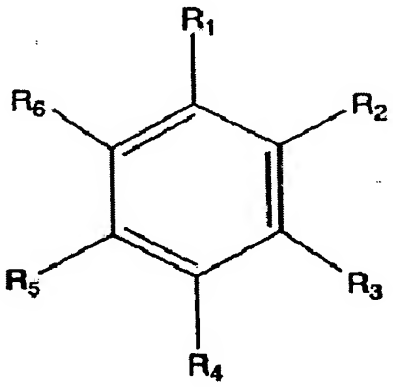
alkoxyl group, a phenyl group, a phenoxy group, a benzyl group, fluorine, chlorine, bromine, or a C_{1-3} alkyl-substituted phenyl group, phenoxy group, or benzyl group; and R_{10}, R_{11}, R_{12}, R_{13}, and R_{14} each denotes a C_{1-3} alkoxyl group, a phenyl group, a benzyl group, or a phenyl group, phenoxy group, or benzyl group substituted with fluorine, chlorine, or bromine.)

14. The lithium secondary battery according to claim 13 wherein said phenylsilane derivative is selected from the group comprising diphenylsilane, diphenylmethylsilane, 4-methylpheyltrimethylsilane, and diphenyldimethoxysilane.

15. A lithium secondary battery having a nonaqueous electrolytic solution characterized in that the lithium secondary battery has a charge capacity of C_1 when it (in discharged state) is charged with constant current until a voltage V_1 of 1.2V is reached and the lithium secondary battery has a charge capacity of C_2 when it is charged further (at a voltage higher than V_1) until it cannot be charged any longer, with the ratio (ξ) of C_1/C_2 being lower than 0.7 and wherein said nonaqueous electrolytic solution is composed of a fluorinated solvent represented by the chemical formula (1) and an aromatic compound represented by the chemical formula (2) below.

$$Rf_1——X——Rf_2 \quad (1)$$

(where Rf_1 denotes an entirely or partly fluorinated C_{2-10} alkyl group, Rf_2 denotes an entirely or partly fluorinated C_{1-5} alkyl group, and X denotes an ether or ester.)

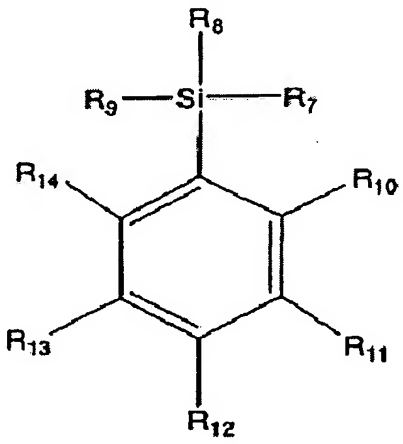


(2)

(where R_1, R_2, R_3, and R_4 each denotes hydrogen, fluorine, chlorine, bromine, a C_{1-3} alkyl group or alkoxyl group, a phenyl group, a phenoxy group, an alkyl-substituted phenyl group or phenoxy group, a C_{1-4} carboxyl group, a benzyl group, or an alkyl-substituted or alkoxyl-substituted silyl group; and R_5 and R_6 each denotes hydrogen, fluorine, chlorine, bromine, or a C_{1-3} alkyl group.)

16. The lithium secondary battery according to claim 15 wherein the fluorinated solvent is methyl nanofluorobutyl ether.

17. The lithium secondary battery according to claim 15 wherein the aromatic compound is a phenylsilane derivative represented by the chemical formula (3) below.



(3)

(where R_7, R_8, and R_9 each denotes hydrogen, a C_{1-3} alkyl group or alkoxyl group, a phenyl group, a phenoxy group, a benzyl group, fluorine, chlorine, bromine, or a C_{1-3} alkyl-substituted phenyl group, phenoxy group, or benzyl group; and R_{10}, R_{11}, R_{12}, R_{13}, and R_{14} each denotes a C_{1-3} alkoxyl group, a phenyl group, a benzyl group, or a phenyl group, phenoxy group, or benzyl group substituted with fluorine, chlorine, or bromine.)

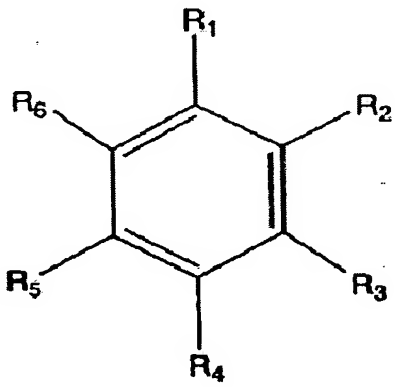
18. The lithium secondary battery according to claim 17 wherein said phenylsilane derivative is selected from the group comprising diphenylsilane, diphenylmethylsilane, 4-methylpheyltrimethylsilane, and diphenyldimethoxysilane.

19. An electrical appliance using a lithium secondary battery as a power source which comprises a means for protecting the lithium secondary batteries from overcharging and overdischarging being free from temperature and pressure detection of the batteries, a means for detecting voltages or current of the batteries and a means for controlling to turn on or off the batteries said lithium secondary battery comprising a nonaqueous electrolytic solution containing a compound which is oxidized at a voltage higher than a charge end voltage of the lithium secondary battery and a compound which inhibits reactions at voltages lower than said charge end voltage.

20. The electrical appliance of claim 19 wherein said nonaqueous electrolytic solution is composed of a fluorinated solvent represented by the chemical formula (1) and an aromatic compound represented by the chemical formula (2) below.

$$Rf_1——X——Rf_2 \quad (1)$$

(where Rf_1 denotes an entirely or partly fluorinated C_{2-10} alkyl group, Rf_2 denotes an entirely or partly fluorinated C_{1-5} alkyl group, and X denotes an ether or ester.)

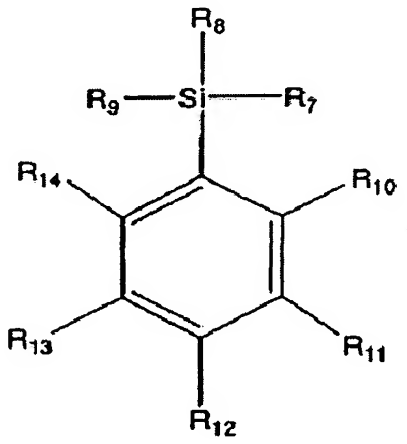


(2)

(where R_1, R_2, R_3, and R_4 each denotes hydrogen, fluorine, chlorine, bromine, a C_{1-3} alkyl group or alkoxyl group, a phenyl group, a phenoxy group, an alkyl-substituted phenyl group or phenoxy group, a C_{1-4} carboxyl group, a benzyl group, or an alkyl-substituted or alkoxyl-substituted silyl group; and R_5 and R_6 each denotes hydrogen, fluorine, chlorine, bromine, or a C_{1-3} alkyl group.)

21. The electrical appliance according to claim 20 wherein the fluorinated solvent is methyl nanofluorobutyl ether.

22. The electrical appliance according to claim 20 wherein the aromatic compound is a phenylsilane derivative represented by the chemical formula (3) below.



(3)

(where R_7, R_8, and R_9 each denotes hydrogen, a C_{1-3} alkyl group or alkoxyl group, a phenyl group, a phenoxy group, a benzyl group, fluorine, chlorine, bromine, or a C_{1-3} alkyl-substituted phenyl group, phenoxy group, or benzyl group; and R_{10}, R_{11}, R_{12}, R_{13}, and R_{14} each denotes a C_{1-3} alkoxyl group, a phenyl group, a benzyl group, or a phenyl group, phenoxy group, or benzyl group substituted with fluorine, chlorine, or bromine.)

23. The electrical appliance according to claim 22 wherein said phenylsilane derivative is selected from the group comprising diphenylsilane, diphenylmethylsilane, 4-methylpheyltrimethylsilane, and diphenyl-dimethoxysilane.

24. The electrical appliance according to claim 19 wherein said appliance is an electric car.

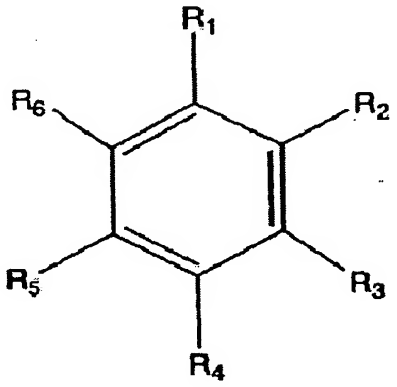
25. An electrical appliance using a lithium secondary battery as a power source which comprises a means for protecting the lithium secondary batteries from overcharging and overdischarging being free from temperature and pressure detection of the batteries, a means for detecting voltages or current of the batteries and a means for controlling to turn on or off the said lithium secondary battery comprising a nonaqueous electrolytic solution characterized in that the lithium secondary battery has a charge capacity of C_1 when it (in discharged state) is charged with constant current until a voltage V_1 of 1.2V is reached and the lithium secondary battery has a charge capacity of C_2 when it is charged further (at a voltage higher than V_1) until it cannot be charged any longer, with the ratio (ξ) of C_1/C_2 being lower than 0.7.

26. The electrical appliance of claim 25 wherein said nonaqueous electrolytic solution is composed of a fluorinated solvent represented by the chemical formula (1) and an aromatic compound represented by the chemical

formula (2) below.

$$Rf_1——X——Rf_2 \quad (1)$$

(where Rf_1 denotes an entirely or partly fluorinated C_{2-10} alkyl group, Rf_2 denotes an entirely or partly fluorinated C_{1-5} alkyl group, and X denotes an ether or ester.)



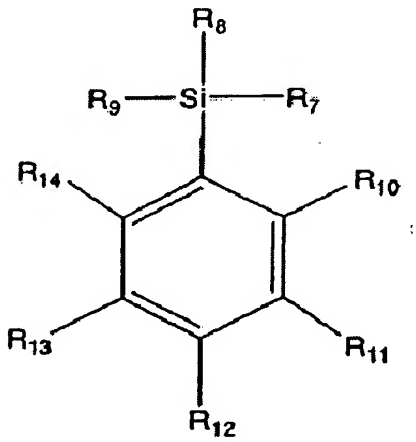
(2)

(where R_1, R_2, R_3, and R_4 each denotes hydrogen, fluorine, chlorine, bromine, a C_{1-3} alkyl group or alkoxyl group, a phenyl group, a phenoxy group, an alkyl-substituted phenyl group or phenoxy group, a C_{1-4} carboxyl group, a benzyl group, or an alkyl-substituted or alkoxyl-substituted silyl group; and R_5 and R_6 each denotes hydrogen, fluorine, chlorine, bromine, or a C_{1-3} alkyl

group.)

27. The electrical appliance according to claim 26 wherein the fluorinated solvent is methyl nanofluorobutyl ether.

28. The electrical appliance according to claim 26 wherein the aromatic compound is a phenylsilane derivative represented by the chemical formula (3) below.



(3)

(where R_7, R_8, and R_9 each denotes hydrogen, a C_{1-3} alkyl group or alkoxyl group, a phenyl group, a phenoxy group, a benzyl group, fluorine, chlorine, bromine, or a C_{1-3} alkyl-substituted phenyl group, phenoxy group, or benzyl group; and R_{10}, R_{11}, R_{12}, R_{13}, and R_{14} each denotes a C_{1-3} alkoxyl group, a phenyl group, a benzyl group, or a phenyl group, phenoxy group, or benzyl

group substituted with fluorine, chlorine, or bromine.)

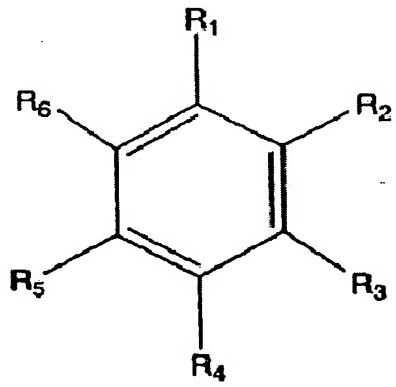
29. The electrical appliance according to claim 28 wherein said phenylsilane derivative is selected from the group comprising diphenylsilane, diphenylmethylsilane, 4-methylpheyltrimethylsilane, and diphenyl-dimethoxysilane.

30. The electrical appliance according to claim 25 wherein said appliance is an electric car.

31. An electrical appliance using a lithium secondary battery as a power source which comprises a means for protecting the lithium secondary batteries from overcharging and overdischarging being free from temperature and pressure detection of the batteries, a means for detecting voltages or current of the batteries and a means for controlling to turn on or off the batteries said lithium secondary battery comprising a nonaqueous electrolytic solution containing a compound which is oxidized at a voltage higher than a charge end voltage of the lithium secondary battery and a compound which inhibits reactions at voltages lower than said charge end voltage wherein said nonaqueous electrolytic solution is composed of a fluorinated solvent represented by the chemical formula (1) and an aromatic compound represented by the chemical formula (2) below.

$$Rf_1——X——Rf_2 \quad (1)$$

(where Rf_1 denotes an entirely or partly fluorinated C_{2-10} alkyl group, Rf_2 denotes an entirely or partly fluorinated C_{1-5} alkyl group, and X denotes an ether or ester.)

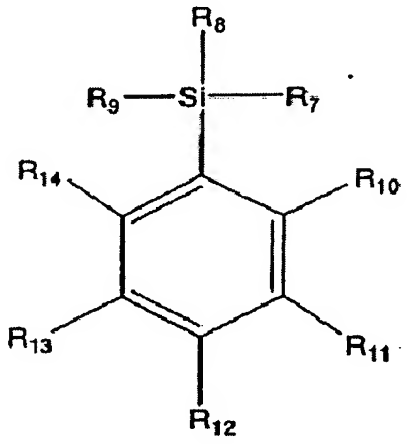


(2)

(where R_1, R_2, R_3, and R_4 each denotes hydrogen, fluorine, chlorine, bromine, a C_{1-3} alkyl group or alkoxyl group, a phenyl group, a phenoxy group, an alkyl-substituted phenyl group or phenoxy group, a C_{1-4} carboxyl group, a benzyl group, or an alkyl-substituted or alkoxyl-substituted silyl group; and R_5 and R_6 each denotes hydrogen, fluorine, chlorine, bromine, or a C_{1-3} alkyl group.)

32. The electrical appliance according to claim 31 wherein the fluorinated solvent is methyl nanofluorobutyl ether.

33. The electrical appliance according to claim 31 wherein the aromatic compound is a phenylsilane derivative represented by the chemical formula (3) below.



(3)

(where R_7, R_8, and R_9 each denotes hydrogen, a C_{1-3} alkyl group or alkoxyl group, a phenyl group, a phenoxy group, a benzyl group, fluorine, chlorine, bromine, or a C_{1-3} alkyl-substituted phenyl group, phenoxy group, or benzyl group; and R_{10}, R_{11}, R_{12}, R_{13}, and R_{14} each denotes a C_{1-3} alkoxyl group, a phenyl group, a benzyl group, or a phenyl group, phenoxy group, or benzyl group substituted with fluorine, chlorine, or bromine.)

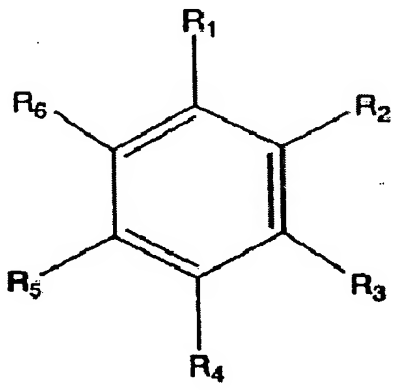
34. The electrical appliance according to claim 33 wherein said phenylsilane derivative is selected from the group comprising diphenylsilane, diphenylmethylsilane, 4-methylpheyltrimethylsilane, and diphenyl-dimethoxysilane.

35. The electrical appliance according to claim 31 wherein said appliance is an electric car.

36. An electrical appliance using a lithium secondary battery as a power source which comprises a means for protecting the lithium secondary batteries from overcharging and overdischarging being free from temperature and pressure detection of the batteries, a means for detecting voltages or current of the batteries and a means for controlling to turn on or off the batteries said lithium secondary battery comprising a nonaqueous electrolytic solution characterized in that the lithium secondary battery has a charge capacity of C_1 when it (in discharged state) is charged with constant current until a voltage V_1 of 1.2V is reached and the lithium secondary battery has a charge capacity of C_2 when it is charged further (at a voltage higher than V_1) until it cannot be charged any longer, with the ratio (ξ) of C_1/C_2 being lower than 0.7 and wherein said nonaqueous electrolytic solution is composed of a fluorinated solvent represented by the chemical formula (1) and an aromatic compound represented by the chemical formula (2) below.

$$Rf_1——X——Rf_2 \quad (1)$$

(where Rf_1 denotes an entirely or partly fluorinated C_{2-10} alkyl group, Rf_2 denotes an entirely or partly fluorinated C_{1-5} alkyl group, and X denotes an ether or ester.)

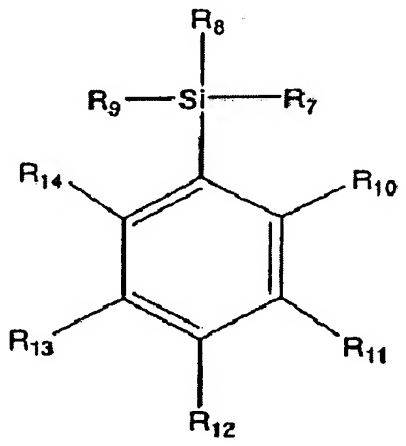


(2)

(where R_1, R_2, R_3, and R_4 each denotes hydrogen, fluorine, chlorine, bromine, a C_{1-3} alkyl group or alkoxyl group, a phenyl group, a phenoxy group, an alkyl-substituted phenyl group or phenoxy group, a C_{1-4} carboxyl group, a benzyl group, or an alkyl-substituted or alkoxyl-substituted silyl group; and R_5 and R_6 each denotes hydrogen, fluorine, chlorine, bromine, or a C_{1-3} alkyl group.)

37. The electrical appliance according to claim 36 wherein the fluorinated solvent is methyl nanofluorobutyl ether.

38. The electrical appliance according to claim 36 wherein the aromatic compound is a phenylsilane derivative represented by the chemical formula (3) below.



(3)

(where R_7, R_8, and R_9 each denotes hydrogen, a C_{1-3} alkyl group or alkoxyl group, a phenyl group, a phenoxy group, a benzyl group, fluorine, chlorine, bromine, or a C_{1-3} alkyl-substituted phenyl group, phenoxy group, or benzyl group; and R_{10}, R_{11}, R_{12}, R_{13}, and R_{14} each denotes a C_{1-3} alkoxyl group, a phenyl group, a benzyl group, or a phenyl group, phenoxy group, or benzyl group substituted with fluorine, chlorine, or bromine.)

39. The electrical appliance according to claim 38 wherein said phenylsilane derivative is selected from the group comprising diphenylsilane, diphenylmethylsilane, 4-methylpheyltrimethylsilane, and diphenyl-dimethoxysilane.

40. The electrical appliance according to claim 36 wherein said appliance is an electric car.

41. A method of fabricating a lithium secondary battery comprising the steps of:

providing an anode;

providing a cathode;

providing a separator; and

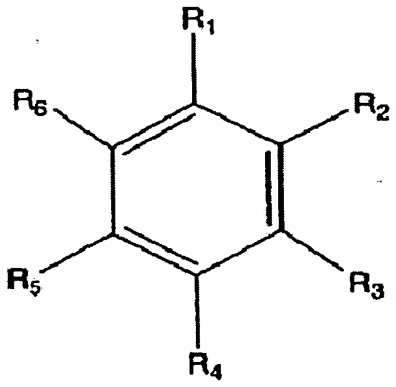
providing a nonaqueous electrolytic solution containing a compound which is oxidized at a voltage higher than a charge end voltage of the lithium secondary battery and a compound which inhibits reactions at voltages lower than said charge end voltage.

42. The method of claim 41 wherein said nonaqueous electrolytic solution is composed of a fluorinated solvent represented by the chemical

formula (1) and an aromatic compound represented by the chemical formula (2) below.

$$Rf_1——X——Rf_2 \qquad (1)$$

(where Rf_1 denotes an entirely or partly fluorinated C_{2-10} alkyl group, Rf_2 denotes an entirely or partly fluorinated C_{1-5} alkyl group, and X denotes an ether or ester.)



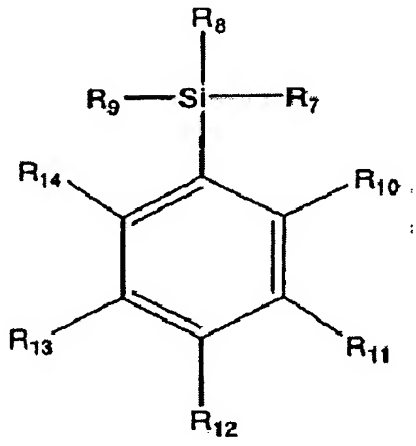
(2)

(where R_1, R_2, R_3, and R_4 each denotes hydrogen, fluorine, chlorine, bromine, a C_{1-3} alkyl group or alkoxyl group, a phenyl group, a phenoxy group, an alkyl-substituted phenyl group or phenoxy group, a C_{1-4} carboxyl group, a benzyl group, or an alkyl-substituted or alkoxyl-substituted silyl group; and R_5

and R_6 each denotes hydrogen, fluorine, chlorine, bromine, or a C_{1-3} alkyl group.)

43. The method according to claim 42 wherein the fluorinated solvent is methyl nanofluorobutyl ether.

44. The method according to claim 42 wherein the aromatic compound is a phenylsilane derivative represented by the chemical formula (3) below.



(3)

(where R_7, R_8, and R_9 each denotes hydrogen, a C_{1-3} alkyl group or alkoxyl group, a phenyl group, a phenoxy group, a benzyl group, fluorine, chlorine, bromine, or a C_{1-3} alkyl-substituted phenyl group, phenoxy group, or benzyl group; and R_{10}, R_{11}, R_{12}, R_{13}, and R_{14} each denotes a C_{1-3} alkoxyl group,

a phenyl group, a benzyl group, or a phenyl group, phenoxy group, or benzyl group substituted with fluorine, chlorine, or bromine.)

45. The method according to claim 44 wherein said phenylsilane derivative is selected from the group comprising diphenylsilane, diphenylmethylsilane, 4-methylpheyltrimethylsilane, and diphenyl-dimethoxysilane.

46. A method of fabricating a lithium secondary battery comprising the steps of:

providing an anode;

providing a cathode;

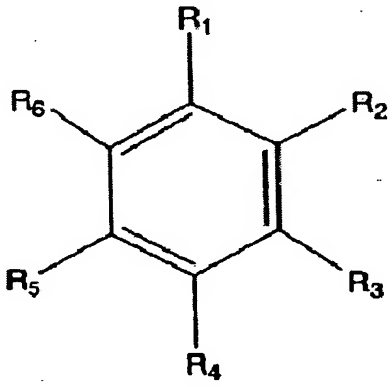
providing a separator; and

providing a nonaqueous electrolytic solution characterized in that the lithium secondary battery has a charge capacity of C_1 when it (in discharged state) is charged with constant current until a voltage V_1 of 1.2V is reached and the lithium secondary battery has a charge capacity of C_2 when it is charged further (at a voltage higher than V_1) until it cannot be charged any longer, with the ratio (ξ) of C_1/C_2 being lower than 0.7.

47. The method of claim 46 wherein said nonaqueous electrolytic solution is composed of a fluorinated solvent represented by the chemical formula (1) and an aromatic compound represented by the chemical formula (2) below.

$$Rf_1——X——Rf_2 \quad (1)$$

(where Rf_1 denotes an entirely or partly fluorinated C_{2-10} alkyl group, Rf_2 denotes an entirely or partly fluorinated C_{1-5} alkyl group, and X denotes an ether or ester.)



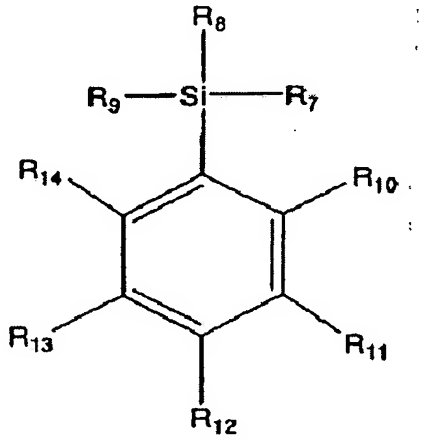
(2)

(where R_1, R_2, R_3, and R_4 each denotes hydrogen, fluorine, chlorine, bromine, a C_{1-3} alkyl group or alkoxyl group, a phenyl group, a phenoxy group,

an alkyl-substituted phenyl group or phenoxy group, a C_{1-4} carboxyl group, a benzyl group, or an alkyl-substituted or alkoxyl-substituted silyl group; and R_5 and R_6 each denotes hydrogen, fluorine, chlorine, bromine, or a C_{1-3} alkyl group.)

48. The method according to claim 47 wherein the fluorinated solvent is methyl nanofluorobutyl ether.

49. The method according to claim 47 wherein the aromatic compound is a phenylsilane derivative represented by the chemical formula (3) below.



(3)

(where R_7, R_8, and R_9 each denotes hydrogen, a C_{1-3} alkyl group or alkoxyl group, a phenyl group, a phenoxy group, a benzyl group, fluorine,

chlorine, bromine, or a C_{1-3} alkyl-substituted phenyl group, phenoxy group, or benzyl group; and R_{10}, R_{11}, R_{12}, R_{13}, and R_{14} each denotes a C_{1-3} alkoxyl group, a phenyl group, a benzyl group, or a phenyl group, phenoxy group, or benzyl group substituted with fluorine, chlorine, or bromine.)

50. The method according to claim 49 wherein said phenylsilane derivative is selected from the group comprising diphenylsilane, diphenylmethylsilane, 4-methylpheyltrimethylsilane, and diphenyl-dimethoxysilane.

51. A method of fabricating a lithium secondary battery comprising the steps of:

providing an anode;

providing a cathode;

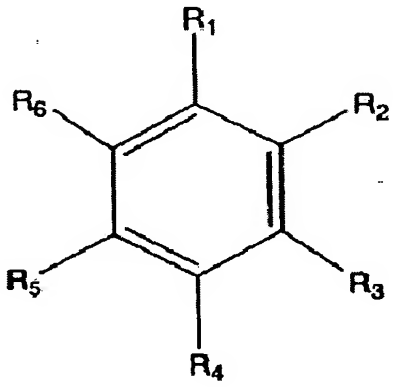
providing a separator; and

providing a nonaqueous electrolytic solution containing a compound which is oxidized at a voltage higher than a charge end voltage of the lithium secondary battery and a compound which inhibits reactions at voltages lower than said charge end voltage wherein said nonaqueous electrolytic solution is composed of a fluorinated solvent represented by the chemical formula (1) and

an aromatic compound represented by the chemical formula (2) below.

$$Rf_1——X——Rf_2 \quad (1)$$

(where Rf_1 denotes an entirely or partly fluorinated C_{2-10} alkyl group, Rf_2 denotes an entirely or partly fluorinated C_{1-5} alkyl group, and X denotes an ether or ester.)



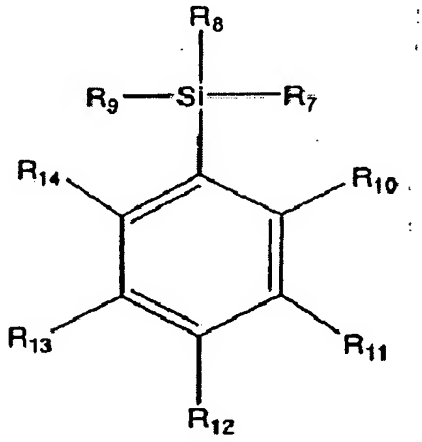
(2)

(where R_1, R_2, R_3, and R_4 each denotes hydrogen, fluorine, chlorine, bromine, a C_{1-3} alkyl group or alkoxyl group, a phenyl group, a phenoxy group, an alkyl-substituted phenyl group or phenoxy group, a C_{1-4} carboxyl group, a benzyl group, or an alkyl-substituted or alkoxyl-substituted silyl group; and R_5 and R_6 each denotes hydrogen, fluorine, chlorine, bromine, or a C_{1-3} alkyl

group.)

52. The method according to claim 51 wherein the fluorinated solvent is methyl nanofluorobutyl ether.

53. The method according to claim 51 wherein the aromatic compound is a phenylsilane derivative represented by the chemical formula (3) below.



(3)

(where R_7, R_8, and R_9 each denotes hydrogen, a C_{1-3} alkyl group or alkoxyl group, a phenyl group, a phenoxy group, a benzyl group, fluorine, chlorine, bromine, or a C_{1-3} alkyl-substituted phenyl group, phenoxy group, or benzyl group; and R_{10}, R_{11}, R_{12}, R_{13}, and R_{14} each denotes a C_{1-3} alkoxyl group, a phenyl group, a benzyl group, or a phenyl group, phenoxy group, or benzyl

group substituted with fluorine, chlorine, or bromine.)

54. The method according to claim 53 wherein said phenylsilane derivative is selected from the group comprising diphenylsilane, diphenylmethylsilane, 4-methylpheyltrimethylsilane, and diphenyl-dimethoxysilane.

55. A method of fabricating a lithium secondary battery comprising the steps of:

providing an anode;

providing a cathode;

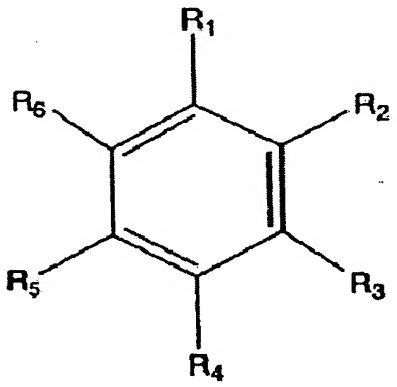
providing a separator; and

providing a nonaqueous electrolytic solution characterized in that the lithium secondary battery has a charge capacity of C_1 when it (in discharged state) is charged with constant current until a voltage V_1 of 1.2V is reached and the lithium secondary battery has a charge capacity of C_2 when it is charged further (at a voltage higher than V_1) until it cannot be charged any longer, with the ratio (ξ) of C_1/C_2 being lower than 0.7 and wherein said nonaqueous electrolytic solution is composed of a fluorinated solvent represented by the chemical formula (1) and an aromatic compound represented by the chemical

formula (2) below.

$$Rf_1——X——Rf_2 \quad (1)$$

(where Rf_1 denotes an entirely or partly fluorinated C_{2-10} alkyl group, Rf_2 denotes an entirely or partly fluorinated C_{1-5} alkyl group, and X denotes an ether or ester.)



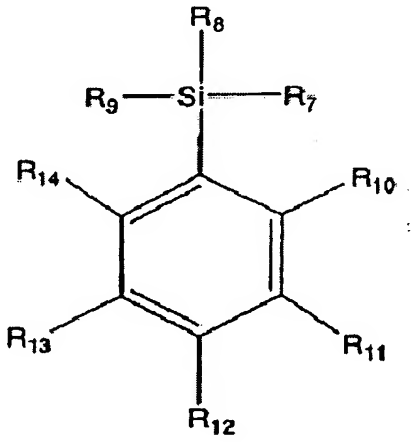
(2)

(where R_1, R_2, R_3, and R_4 each denotes hydrogen, fluorine, chlorine, bromine, a C_{1-3} alkyl group or alkoxyl group, a phenyl group, a phenoxy group, an alkyl-substituted phenyl group or phenoxy group, a C_{1-4} carboxyl group, a benzyl group, or an alkyl-substituted or alkoxyl-substituted silyl group; and R_5 and R_6 each denotes hydrogen, fluorine, chlorine, bromine, or a C_{1-3} alkyl

group.)

56. The method according to claim 55 wherein the fluorinated solvent is methyl nanofluorobutyl ether.

57. The method according to claim 55 wherein the aromatic compound is a phenylsilane derivative represented by the chemical formula (3) below.



(3)

(where R_7, R_8, and R_9 each denotes hydrogen, a C_{1-3} alkyl group or alkoxyl group, a phenyl group, a phenoxy group, a benzyl group, fluorine, chlorine, bromine, or a C_{1-3} alkyl-substituted phenyl group, phenoxy group, or benzyl group; and R_{10}, R_{11}, R_{12}, R_{13}, and R_{14} each denotes a C_{1-3} alkoxyl group, a phenyl group, a benzyl group, or a phenyl group, phenoxy group, or benzyl

group substituted with fluorine, chlorine, or bromine.)

58. The method according to claim 57 wherein said phenylsilane derivative is selected from the group comprising diphenylsilane, diphenylmethylsilane, 4-methylpheyltrimethylsilane, and diphenyl-dimethoxysilane.